ELSEVIER

Journal of Alloys and Compounds 292 (1999) 312

Journal of ALLOYS AND COMPOUNDS

Author Index of Volume 292

Abe, S., 11
Adachi, G.-y., L8, 166
Akiba, E., 107
Alqasmi, R.A., 148
Arakawa, M., 107
Aurelio, G., 31
Aymard, L., 84

Berdonosov, P.S., 118
Bogdanović, B., 57
Boily, S., 247
Bonet, F., 96
Bortz, M., 311
Bououdina, M., 166
Brück, E., 38
Buschow, K.H.J., 38, 253

Charkin, D.O., 118
Chen, W.C., 134
Chen, X.L., L1
Chen, Z.H., 230
Chonghe, L., 129
Corré, S., 166

Davidson, D.J., 194, 202
De Boer, F.R., 38, 253
Denis, M.C., 301
DiSalvo, F.J., 124
Dodelet, J.P., 301
Dolgikh, V.A., 118
Dupont, L., 84

El-Mahallawy, N., 221

Farr, J.P.G., 266
Fateev, G.A., 258
Fernández Guillermet, A., 31
Fredriksson, H., 221
Friedlmeier, G., 107
Fruchart, D., 166
Furuya, Y., 287

Gamari-Seale, H., 21
Gao, X.P., 191
Gaviko, V.S., 51
Gebel, B., 296
Goto, T., 51
Gruner, W., 212
Guay, D., 301
Gulaj, L.D., 1
Gutfleisch, O., 296
Gutmann, M., 311

Hagii, T., 11
Han, B.-s., 253
Handstein, A., 296
Harris, I.R., 266
Henry, P.F., 152
Herrera-Urbina, R., 96
Heuser, B.J., 134
Hirai, T., 107
Hofmann, H., 57
Hofmann, M., 45
Hu, B., 233
Hu, J., 233
Huang, P.Y., 230
Huo, G.Y., L1
Huot, J., 247, 292

Ijjaali, I., 4
Inoue, A., 275

Jakubowicz, J., 296
Jarfors, A.E.W., 221
Jurczyk, M., 296

Kaczorowski, D., 1
Kalychak, Ya.M., 1
Kim, B.J., 174
King, J.S., 134
Klaasse, J.C.P., 38
Kolenda, M., 45
Kubis, M., 212
Kuriyama, N., 166

Lalande, G., 301
Lee, H., 258
Lee, J.Y., 258
Lee, K.S., 174
Lee, S.M., 258
Lei, Y.Q., 236, 241
Lenain, C., 84
Liang, G., 247
Liang, J.K., L1
Liang, Y.N., 38
Lightfoot, P., 118
Littman, A., 124
Liu, J., 191
Liu, Z.Y., 38
Lutz, H.D., 90

Machida, K.-i., L8
Malaman, B., 4
Malicka, E., 90
Masui, T., L8
Matsuya, S., 281
Mattern, N., 212
Moon, K.I., 174
Mordike, B.L., 27
Morozkin, A.V., 162
Müller, K.-H., 212, 296
Mushnikov, N.V., 51

Nagase, T., 181
Nagata, Y., 11
Nagel, R., 90
Nakagawa, M., 281
Neuy, A., 57
Nianyi, C., 129

Ohnaka, I., 181
Ohta, M., 281
Okonska-Kozlowska, I., 90
Ouchida, R., 281
Ouladdiaf, B., 21
Ozaki, T., L8

Penc, B., 45
Proctor, K.J., 124

Qiao, Z.Y., L1
Qin, W., 230

Rao, G.H., L1
Regan, K.A., 124
Reiser, A., 57
Ren, K., 236, 241
Routsi, Ch.D., 21
Rudajevová, A., 27
Ruiliang, C., 129

Sai Raman, S.S., 194, 202
Samata, H., 11
Schlichte, K., 57
Schmitt, D., 21
Schulz, R., 247, 292, 301
Scott, B.A., 77
Shen, B.-g., 253
Shiraishi, T., 281
Shoji, T., 275
Silvert, P.-Y., 96
Sommer, F., 156
Song, D.Y., 191
Spliethoff, B., 57
Sreedharan, O.M., 100
Srivastava, O.N., 194, 202
Starowicz, P., 45
Stepien-Damm, J., 1
Sun, Z.-g., 253
Swainson, I.P., 292
Swaminathan, K., 100
Szytula, A., 45

Taha, M.A., 221
Takasaki, A., 287
Tarascon, J.-M., 84
Tekaia-Elhsissen, K., 96
Terada, Y., 281
Teresiak, A., 212

Van Neste, A., 247
Venturini, G., 4
Villars, P., 129
von Buch, F., 27

Walker, D., 77
Wang, K., 233
Wang, Q.D., 236, 241
Wang, W.H., 191
Wang, Y., 77, 233
Wang, Z., 233
Weller, M.T., 152
Welter, R., 4
Wencong, L., 129
Wessel, S., 57
Williams, A.J., 266
Wolf, M., 212

Yakinthos, J.K., 21
Yamauchi, I., 181
Yan, G., 266
Yang, X.G., 236, 241
Yashiro, S., 11
Ye, J., 72
Ye, S.H., 191
Yu, J.S., 258
Yuan, H.T., 191
Yvon, K., 311

Zajkov, N.K., 51
Zaremba, V., 1
Zeng, D.C., 38
Zhang, H.-w., 253
Zhang, L., 38
Zhang, Q.A., 236, 241
Zhang, S.-y., 253
Zhang, Y.S., 191
Zhao, T., 253
Zhou, S.H., 156
Zhuang, Y.H., 230
Zou, Z., 72

Elsevier Science S.A.
PII: S0925-8388(99)00623-4

ELSEVIER

Journal of Alloys and Compounds 292 (1999) 312

Journal of ALLOYS AND COMPOUNDS

Author Index of Volume 292

Abe, S., 11
Adachi, G.-y., L8, 166
Akiba, E., 107
Alqasmi, R.A., 148
Arakawa, M., 107
Aurelio, G., 31
Aymard, L., 84

Berdonosov, P.S., 118
Bogdanović, B., 57
Boily, S., 247
Bonet, F., 96
Bortz, M., 311
Bououdina, M., 166
Brück, E., 38
Buschow, K.H.J., 38, 253

Charkin, D.O., 118
Chen, W.C., 134
Chen, X.L., L1
Chen, Z.H., 230
Chonghe, L., 129
Corré, S., 166

Davidson, D.J., 194, 202
De Boer, F.R., 38, 253
Denis, M.C., 301
DiSalvo, F.J., 124
Dodelet, J.P., 301
Dolgikh, V.A., 118
Dupont, L., 84

El-Mahallawy, N., 221

Farr, J.P.G., 266
Fateev, G.A., 258
Fernández Guillermet, A., 31
Fredriksson, H., 221
Friedlmeier, G., 107
Fruchart, D., 166
Furuya, Y., 287

Gamari-Seale, H., 21
Gao, X.P., 191
Gaviko, V.S., 51
Gebel, B., 296
Goto, T., 51
Gruner, W., 212
Guay, D., 301
Gulaj, L.D., 1
Gutfleisch, O., 296
Gutmann, M., 311

Hagii, T., 11
Han, B.-s., 253
Handstein, A., 296
Harris, I.R., 266
Henry, P.F., 152
Herrera-Urbina, R., 96
Heuser, B.J., 134
Hirai, T., 107
Hofmann, H., 57
Hofmann, M., 45
Hu, B., 233
Hu, J., 233
Huang, P.Y., 230
Huo, G.Y., L1
Huot, J., 247, 292

Ijjaali, I., 4
Inoue, A., 275

Jakubowicz, J., 296
Jarfors, A.E.W., 221
Jurczyk, M., 296

Kaczorowski, D., 1
Kalychak, Ya.M., 1
Kim, B.J., 174
King, J.S., 134
Klaasse, J.C.P., 38
Kolenda, M., 45
Kubis, M., 212
Kuriyama, N., 166

Lalande, G., 301
Lee, H., 258
Lee, J.Y., 258
Lee, K.S., 174
Lee, S.M., 258
Lei, Y.Q., 236, 241
Lenain, C., 84
Liang, G., 247
Liang, J.K., L1
Liang, Y.N., 38
Lightfoot, P., 118
Littman, A., 124
Liu, J., 191
Liu, Z.Y., 38
Lutz, H.D., 90

Machida, K.-i., L8
Malaman, B., 4
Malicka, E., 90
Masui, T., L8
Matsuya, S., 281
Mattern, N., 212
Moon, K.I., 174
Mordike, B.L., 27
Morozkin, A.V., 162
Müller, K.-H., 212, 296
Mushnikov, N.V., 51

Nagase, T., 181
Nagata, Y., 11
Nagel, R., 90
Nakagawa, M., 281
Neuy, A., 57
Nianyi, C., 129

Ohnaka, I., 181
Ohta, M., 281
Okonska-Kozlowska, I., 90
Ouchida, R., 281
Ouladdiaf, B., 21
Ozaki, T., L8

Penc, B., 45
Proctor, K.J., 124

Qiao, Z.Y., L1
Qin, W., 230

Rao, G.H., L1
Regan, K.A., 124
Reiser, A., 57
Ren, K., 236, 241
Routsi, Ch.D., 21
Rudajevová, A., 27
Ruiliang, C., 129

Sai Raman, S.S., 194, 202
Samata, H., 11
Schlichte, K., 57
Schmitt, D., 21
Schulz, R., 247, 292, 301
Scott, B.A., 77
Shen, B.-g., 253
Shiraishi, T., 281
Shoji, T., 275
Silvert, P.-Y., 96
Sommer, F., 156
Song, D.Y., 191
Spliethoff, B., 57
Sreedharan, O.M., 100
Srivastava, O.N., 194, 202
Starowicz, P., 45
Stepien-Damm, J., 1
Sun, Z.-g., 253
Swainson, I.P., 292
Swaminathan, K., 100
Szytula, A., 45

Taha, M.A., 221
Takasaki, A., 287
Tarascon, J.-M., 84
Tekaia-Elhsissen, K., 96
Terada, Y., 281
Teresiak, A., 212

Van Neste, A., 247
Venturini, G., 4
Villars, P., 129
von Buch, F., 27

Walker, D., 77
Wang, K., 233
Wang, Q.D., 236, 241
Wang, W.H., 191
Wang, Y., 77, 233
Wang, Z., 233
Weller, M.T., 152
Welter, R., 4
Wencong, L., 129
Wessel, S., 57
Williams, A.J., 266
Wolf, M., 212

Yakinthos, J.K., 21
Yamauchi, I., 181
Yan, G., 266
Yang, X.G., 236, 241
Yashiro, S., 11
Ye, J., 72
Ye, S.H., 191
Yu, J.S., 258
Yuan, H.T., 191
Yvon, K., 311

Zajkov, N.K., 51
Zaremba, V., 1
Zeng, D.C., 38
Zhang, H.-w., 253
Zhang, L., 38
Zhang, Q.A., 236, 241
Zhang, S.-y., 253
Zhang, Y.S., 191
Zhao, T., 253
Zhou, S.H., 156
Zhuang, Y.H., 230
Zou, Z., 72

Elsevier Science S.A.
PII: S0925-8388(99)00623-4

ELSEVIER

Journal of Alloys and Compounds 292 (1999) 313–317

Journal of ALLOYS AND COMPOUNDS

Subject Index of Volume 292

Activation characteristics
the activation characteristics of a Zr-based hydrogen storage alloy electrode surface-modified by ball-milling process 258
Age-hardening
effects of variable Au/Cu ratio and Ga content on the ordering rate in Au–Cu and Au–Cu–Ga alloys 281
Al-based MMC
on the reaction between aluminium, K_2TiF_6 and KBF_4 221
Alloys
finely divided platinum–gold alloy powders prepared in ethylene glycol 96
Al–Ti alloys
the effect of the third-element addition on the fatigue properties of mechanically alloyed Al–Ti alloys 174
Al–Ti–X (X=B, V, Zr, Ce) alloys
the effect of the third-element addition on the fatigue properties of mechanically alloyed Al–Ti alloys 174
Amorphization
magnetic properties of crystalline and amorphous $GdCo_2H_x$ hydrides 51
Amorphous $Al_{25}Cu_{20}La_{55}$, $Al_{25}Cu_{10}La_{55}Ni_{10}$
thermodynamic properties of liquid, undercooled liquid and amorphous Al–Cu–La–Ni alloys 156
Amorphous alloys
hydrogen absorption and desorption behavior of Zr-based amorphous alloys with a large structurally relaxed amorphous region 275
Amorphous hydride
hydrogen absorption and desorption behavior of Zr-based amorphous alloys with a large structurally relaxed amorphous region 275
Annealing treatment
annealing treatment of AB_2-type hydrogen storage alloys: I. crystal structures 236
annealing treatment of AB_2-type hydrogen storage alloys: II. Electrochemical properties 241
Antiferromagnetism
magnetic structures of $Tb_2Co_3Si_5$ and $Dy_2Co_3Si_5$ compounds 45
Au–Cu alloy
effects of variable Au/Cu ratio and Ga content on the ordering rate in Au–Cu and Au–Cu–Ga alloys 281
Au–Cu–Ga alloy
effects of variable Au/Cu ratio and Ga content on the ordering rate in Au–Cu and Au–Cu–Ga alloys 281
Au–Sr alloys
thermodynamics of solid Au–Sr alloys 148
Automotive exhaust catalysts
effects of surface modification by chemical filing on the redox behavior of a ceria–zirconia mixed oxide L8

Ball-milling process
the activation characteristics of a Zr-based hydrogen storage alloy electrode surface-modified by ball-milling process 258

$Bi_5In_2Nb_3O_{18-\delta}$
single crystal growth and characterization of a new bismuth indium niobate compound, $Bi_5In_2Nb_3O_{18-\delta}$ 72
Binary intermetallic
synthesis and crystal structure of Ca_3Au_4 152
Bonding
interatomic distances in the stable and metastable bcc and omega structures of the transition metals: analysis of experimental and theoretical trends and correlations with Pauling's bond lengths 31

Carbon monoxide
effects of mechanical grinding on the hydrogen storage and electrochemical properties of $LaNi_5$ 166
Cathodic charging
hydrogen evolution from cathodically charged Ti_3Al-based titanium aluminium alloy 287
Cerium intermetallic
thermoelectric properties of the intermediate valent cerium intermetallic $Ce_2Ni_3Si_5$ doped with Pd, Co, and Cu 124
Cerium oxide
effects of surface modification by chemical filing on the redox behavior of a ceria–zirconia mixed oxide L8
Chemical vapor transport
effects of surface modification by chemical filing on the redox behavior of a ceria–zirconia mixed oxide L8
Chemical vapour transport
growth of $M_xGa_{2/3(1-x)}Cr_2Se_4$ (M=Cd, Zn) single crystals by chemical vapour transport and their crystal structure 90
Corrosion
a new $Mg_{0.9}Y_{0.1}Ni$ hydride forming composition obtained by mechanical grinding 84
the effect of density on the corrosion of NdFeB magnets 266
CO-tolerant
structural and surface characterizations of nanocrystalline Pt–Ru alloys prepared by high-energy ball-milling 301
Coulometric titration
thermodynamics of solid Au–Sr alloys 148
Criterion of formation
regularities of formation of ternary intermetallic compounds Part 4. Ternary intermetallic compounds between two nontransition elements and one transition element 129
Crystal lattice expansion
crystal lattice expansion of nanocrystalline materials 230
Crystal structure
single crystal growth and characterization of a new bismuth indium niobate compound, $Bi_5In_2Nb_3O_{18-\delta}$ 72
composition and structure of a new palladate $Ca_{4-1.5x}Au_xPd_4O_8$ (x~0.54) synthesized at high pressure 77
novel lanthanoid–cadmium oxide pnictides with the tetragonal LaOAgS structure 118
influence of nitrogenation on structure development and magnetic properties of mechanically alloyed and annealed Sm–Fe powders 212

Elsevier Science S.A.
PII: S0925-8388(99)00624-6

Dense oxide film
the activation characteristics of a Zr-based hydrogen storage alloy electrode surface-modified by ball-milling process 258
Deuterium
SANS measurements of deuteride (hydride) formation in single crystal Pd 134
Dy–Co intermetallics
magnetic properties of $Dy_2Co_{17-x}Si_x$ compounds 38
Dysprosium–cobalt silicides
magnetic properties of $Dy_2Co_{17-x}Si_x$ compounds 38

Electrical conductivity
crystal structure, magnetic and electrical properties of $ZrNi_2In$ and $ZrCu_2In$ 1
Electrical resistivity
thermoelectric properties of the intermediate valent cerium intermetallic $Ce_2Ni_3Si_5$ doped with Pd, Co, and Cu 124
Electrocatalyst
structural and surface characterizations of nanocrystalline Pt–Ru alloys prepared by high-energy ball-milling 301
Electrocatalytic activity
the activation characteristics of a Zr-based hydrogen storage alloy electrode surface-modified by ball-milling process 258
Electrochemical characteristics
characteristics of mixed hydrogen storage electrode 191
Electrochemical property
annealing treatment of AB_2-type hydrogen storage alloys: II. Electrochemical properties 241
Emf
potentiometric determination of stabilities of $NiSb_2O_4$ and $NiSb_2O_6$ 100
Enthalpy of formation
thermodynamic properties of liquid, undercooled liquid and amorphous Al–Cu–La–Ni alloys 156
Eutectoid reaction
temperature dependence of β-phase transformation in Cu added Fe_2Si_5 thermoelectric material 181
Exchange-coupling
magnetic properties and magnetic domains of Fe-rich Sm–Fe–Cu–Ga–C nanocomposite magnets 253
Exchange interaction
magnetic properties of $Dy_2Co_{17-x}Si_x$ compounds 38

Fatigue properties
the effect of the third-element addition on the fatigue properties of mechanically alloyed Al–Ti alloys 174
Fe–Si alloys
temperature dependence of β-phase transformation in Cu added Fe_2Si_5 thermoelectric material 181
Fuel cell
structural and surface characterizations of nanocrystalline Pt–Ru alloys prepared by high-energy ball-milling 301

Gadolinium–cobalt compounds
magnetic properties of crystalline and amorphous $GdCo_2H_x$ hydrides 51
Gibbs energy
potentiometric determination of stabilities of $NiSb_2O_4$ and $NiSb_2O_6$ 100
Gibbs energy of formation
thermodynamics of solid Au–Sr alloys 148
Gold–calcium alloys
synthesis and crystal structure of Ca_3Au_4 152

Hard magnetic properties
$Nd_2(Fe,Co,M)_{14}B$-type magnet powders produced by the HDDR process 296
HDDR
$Nd_2(Fe,Co,M)_{14}B$-type magnet powders produced by the HDDR process 296
Heat capacity
thermodynamic properties of liquid, undercooled liquid and amorphous Al–Cu–La–Ni alloys 156
Heusler alloys
crystal structure, magnetic and electrical properties of $ZrNi_2In$ and $ZrCu_2In$ 1
High pressure
composition and structure of a new palladate $Ca_{4-1.5x}Au_xPd_4O_8$ (x~0.54) synthesized at high pressure 77
synthesis and crystal structure of Ca_3Au_4 152
High-temperature material
hydrogen evolution from cathodically charged Ti_3Al-based titanium aluminium alloy 287
Hydride
SANS measurements of deuteride (hydride) formation in single crystal Pd 134
Hydrogen
preparation and structural, thermal and hydriding characteristics of melt-spun Mg–Ni alloys 107
Hydrogen absorption
on the synthesis, characterization and hydrogenation behaviour of Mg-based composite materials Mg-x wt.% $CFMmNi_5$ prepared through mechanical alloying 202
hydrogen absorption and desorption behavior of Zr-based amorphous alloys with a large structurally relaxed amorphous region 275
Hydrogen decrepitation
the effect of density on the corrosion of NdFeB magnets 266
Hydrogen in metals
magnetic properties of crystalline and amorphous $GdCo_2H_x$ hydrides 51
effects of mechanical grinding on the hydrogen storage and electrochemical properties of $LaNi_5$ 166
Hydrogen sorption, Magnesium hydride, Composite
catalytic effect of transition metals on hydrogen sorption in nanocrystalline ball milled MgH_2–Tm (Tm=Ti, V, Mn, Fe and Ni) systems 247
Hydrogen storage
ni-doped versus undoped Mg–MgH_2 materials for high temperature heat or hydrogen storage 57
Hydrogen storage alloy
investigation on the synthesis, characterization and hydrogenation behaviour of new Mg-based composite materials Mg-x wt.% $MmNi_{4.6}Fe_{0.4}$ prepared through mechanical alloying 194
annealing treatment of AB_2-type hydrogen storage alloys: I. crystal structures 236
annealing treatment of AB_2-type hydrogen storage alloys: II. Electrochemical properties 241
Hydrogen storage capacity
on the synthesis, characterization and hydrogenation behaviour of Mg-based composite materials Mg-x wt.% $CFMmNi_5$ prepared through mechanical alloying 202

Intermediate valence
thermoelectric properties of the intermediate valent cerium intermetallic $Ce_2Ni_3Si_5$ doped with Pd, Co, and Cu 124
Intermetallic compounds
magnetism and transport properties of $Hf_{1-x}Ta_xFe_2$ and $Mn_{2-x}Cr_xSb$ 11
Intersublattice coupling
magnetic properties of $Dy_2Co_{17-x}Si_x$ compounds 38
Isothermal section
quarternary $Gd_3Ti_2MnSi_3$ compound in the $GdMn_{1-x}Ti_xSi$ (x= 0 . . . 1) section of Gd-Mn-Ti-Si system at 1073 K 162

Itinerant electron model
volume expansion and Curie temperature enhancement in rare earth–iron based nitrides with $TbCu_7$ structure 233

Kondo behavior
thermoelectric properties of the intermediate valent cerium intermetallic $Ce_2Ni_3Si_5$ doped with Pd, Co, and Cu 124

Lanthanum nickel alloys
effects of mechanical grinding on the hydrogen storage and electrochemical properties of $LaNi_5$ 166
Laves phase
annealing treatment of AB_2-type hydrogen storage alloys: I. crystal structures 236
annealing treatment of AB_2-type hydrogen storage alloys: II. Electrochemical properties 241
Liquid alloys
thermodynamic properties of liquid, undercooled liquid and amorphous Al–Cu–La–Ni alloys 156
Lixiviation
neutron diffraction study of lixiviated nanocrystalline Mg–Li compound 292

Magnesium hydride, Light microscopy
ni-doped versus undoped Mg–MgH_2 materials for high temperature heat or hydrogen storage 57
Magnesium–nickel
preparation and structural, thermal and hydriding characteristics of melt-spun Mg–Ni alloys 107
Magnesium powder
ni-doped versus undoped Mg–MgH_2 materials for high temperature heat or hydrogen storage 57
Magnesium-rare earth nickel iron composite
investigation on the synthesis, characterization and hydrogenation behaviour of new Mg-based composite materials Mg–*x* wt.% $MmNi_{4.6}Fe_{0.4}$ prepared through mechanical alloying 194
Magnetic anisotropy
magnetic properties of $Dy_2Co_{17-x}Si_x$ compounds 38
Magnetic behaviour
crystal structure, magnetic and electrical properties of $ZrNi_2In$ and $ZrCu_2In$ 1
Magnetic-force microscopy
magnetic properties and magnetic domains of Fe-rich Sm–Fe–Cu–Ga–C nanocomposite magnets 253
Magnetic moment
single crystal growth and characterization of a new bismuth indium niobate compound, $Bi_3In_2Nb_3O_{18-x}$ 72
Magnetic properties
magnetism and transport properties of $Hf_{1-x}Ta_xFe_2$ and $Mn_{2-x}Cr_xSb$ 11
magnetic properties of $RPdGe_2$ (R=Y, Gd, Tb, Dy) compounds 21
magnetic properties of crystalline and amorphous $GdCo_2H_x$ hydrides 51
influence of nitrogenation on structure development and magnetic properties of mechanically alloyed and annealed Sm–Fe powders 212
magnetic properties and magnetic domains of Fe-rich Sm–Fe–Cu–Ga–C nanocomposite magnets 253
Magnetic structure
magnetic properties of $RPdGe_2$ (R=Y, Gd, Tb, Dy) compounds 21
magnetic structures of $Tb_2Co_3Si_5$ and $Dy_2Co_3Si_5$ compounds 45
Magnetoresistance
magnetism and transport properties of $Hf_{1-x}Ta_xFe_2$ and $Mn_{2-x}Cr_xSb$ 11
Magnetovolume effects
volume expansion and Curie temperature enhancement in rare earth–iron based nitrides with $TbCu_7$ structure 233
Manganese magnetic moments
refinements of the TiNiSi-type RMnSi (R=Tb, Lu, Sc) and DyCoSi structures from single crystal X-ray diffraction 4
Mechanical alloying
a new $Mg_{0.9}Y_{0.1}Ni$ hydride forming composition obtained by mechanical grinding 84
the effect of the third-element addition on the fatigue properties of mechanically alloyed Al–Ti alloys 174
investigation on the synthesis, characterization and hydrogenation behaviour of new Mg-based composite materials Mg–*x* wt.% $MmNi_{4.6}Fe_{0.4}$ prepared through mechanical alloying 194
on the synthesis, characterization and hydrogenation behaviour of Mg-based composite materials Mg-*x* wt.% $CFMmNi_5$ prepared through mechanical alloying 202
influence of nitrogenation on structure development and magnetic properties of mechanically alloyed and annealed Sm–Fe powders 212
Mechanical grinding
effects of mechanical grinding on the hydrogen storage and electrochemical properties of $LaNi_5$ 166
Mechanical milling
catalytic effect of transition metals on hydrogen sorption in nanocrystalline ball milled MgH_2–Tm (Tm=Ti, V, Mn, Fe and Ni) systems 247
Melt spinning
preparation and structural, thermal and hydriding characteristics of melt-spun Mg–Ni alloys 107
Metal hydride
characteristics of mixed hydrogen storage electrode 191
hydrogen evolution from cathodically charged Ti_3Al-based titanium aluminium alloy 287
neutron diffraction study of lixiviated nanocrystalline Mg–Li compound 292
Metal hydrides
preparation and structural, thermal and hydriding characteristics of melt-spun Mg–Ni alloys 107
Metallic glasses
preparation and structural, thermal and hydriding characteristics of melt-spun Mg–Ni alloys 107
Metal matrix composites
on the reaction between aluminium, K_2TiF_6 and KBF_4 221
Metastable
structural and surface characterizations of nanocrystalline Pt–Ru alloys prepared by high-energy ball-milling 301
Metastable phases
interatomic distances in the stable and metastable bcc and omega structures of the transition metals: analysis of experimental and theoretical trends and correlations with Pauling's bond lengths 31
Mg-bearing composite
on the synthesis, characterization and hydrogenation behaviour of Mg-based composite materials Mg-*x* wt.% $CFMmNi_5$ prepared through mechanical alloying 202
MgNi alloy
a new $Mg_{0.9}Y_{0.1}Ni$ hydride forming composition obtained by mechanical grinding 84
Microprobe
growth of $M_xGa_{2/3(1-x)}Cr_2Se_4$ (M=Cd, Zn) single crystals by chemical vapour transport and their crystal structure 90
Mixed hydrogen storage electrodes
characteristics of mixed hydrogen storage electrode 191
Morphology
SANS measurements of deuteride (hydride) formation in single crystal Pd 134

Nanocomposite magnet
magnetic properties and magnetic domains of Fe-rich Sm–Fe–Cu–Ga–C nanocomposite magnets 253
Nanocrystalline materials
crystal lattice expansion of nanocrystalline materials 230
catalytic effect of transition metals on hydrogen sorption in nanocrystalline ball milled MgH_2–Tm (Tm=Ti, V, Mn, Fe and Ni) systems 247
neutron diffraction study of lixiviated nanocrystalline Mg–Li compound 292
Nanosized particles
finely divided platinum–gold alloy powders prepared in ethylene glycol 96
NdFeB
$Nd_2(Fe,Co,M)_{14}B$-type magnet powders produced by the HDDR process 296
NdFeB magnets
the effect of density on the corrosion of NdFeB magnets 266
Nd–Fe–V alloys
phase relations in the Fe-rich region of the Nd–Fe–V system at room temperature L1
Negative Harris Effect
the effect of density on the corrosion of NdFeB magnets 266
Neutron diffraction
magnetic properties of $RPdGe_2$ (R=Y, Gd, Tb, Dy) compounds 21
magnetic structures of $Tb_2Co_3Si_5$ and $Dy_2Co_3Si_5$ compounds 45
neutron diffraction study of lixiviated nanocrystalline Mg–Li compound 292
Ni–Sb–O system
potentiometric determination of stabilities of $NiSb_2O_4$ and $NiSb_2O_6$ 100
Nitrogenation
influence of nitrogenation on structure development and magnetic properties of mechanically alloyed and annealed Sm–Fe powders 212
volume expansion and Curie temperature enhancement in rare earth–iron based nitrides with $TbCu_7$ structure 233

Omega phase
interatomic distances in the stable and metastable bcc and omega structures of the transition metals: analysis of experimental and theoretical trends and correlations with Pauling's bond lengths 31
Ordering
effects of variable Au/Cu ratio and Ga content on the ordering rate in Au–Cu and Au–Cu–Ga alloys 281

Palladium
SANS measurements of deuteride (hydride) formation in single crystal Pd 134
Permanent magnets
$Nd_2(Fe,Co,M)_{14}B$-type magnet powders produced by the HDDR process 296
Phase relationships
phase relations in the Fe-rich region of the Nd–Fe–V system at room temperature L1
Phase transformation
temperature dependence of β-phase transformation in Cu added Fe_2Si_5 thermoelectric material 181
Powder neutron diffraction
synthesis and crystal structure of Ca_3Au_4 152
Powder X-ray diffraction
synthesis and crystal structure of Ca_3Au_4 152
Processing
on the reaction between aluminium, K_2TiF_6 and KBF_4 221
$Nd_2(Fe,Co,M)_{14}B$-type magnet powders produced by the HDDR process 296

Raman
growth of $M_xGa_{2/3x(1-x)}Cr_2Se_4$ (M=Cd, Zn) single crystals by chemical vapour transport and their crystal structure 90
Rare-earth–cadmium oxide pnictides
novel lanthanoid–cadmium oxide pnictides with the tetragonal LaOAgS structure 118
Rare earth cobalt silicides
magnetic structures of $Tb_2Co_3Si_5$ and $Dy_2Co_3Si_5$ compounds 45
Rare earth iron intermetallics
volume expansion and Curie temperature enhancement in rare earth–iron based nitrides with $TbCu_7$ structure 233
Rare earth manganese silicides
refinements of the TiNiSi-type RMnSi (R=Tb, Lu, Sc) and DyCoSi structures from single crystal X-ray diffraction 4
Rare earth nickel composite
on the synthesis, characterization and hydrogenation behaviour of Mg-based composite materials Mg-*x* wt.% $CFMmNi_5$ prepared through mechanical alloying 202
Rare earth palladium germanides
magnetic properties of $RPdGe_2$ (R=Y, Gd, Tb, Dy) compounds 21
Rare earths compounds
quarternary $Gd_3Ti_2MnSi_3$ compound in the $GdMn_{1-x}Ti_xSi$ (x= 0 . . . 1) section of Gd-Mn-Ti-Si system at 1073 K 162
Rechargeable battery
effects of mechanical grinding on the hydrogen storage and electrochemical properties of $LaNi_5$ 166
Reversible thermochemical high temperature heat storage
ni-doped versus undoped Mg–MgH_2 materials for high temperature heat or hydrogen storage 57
Rietveld analysis
effects of variable Au/Cu ratio and Ga content on the ordering rate in Au–Cu and Au–Cu–Ga alloys 281

Selenides
growth of $M_xGa_{2/3x(1-x)}Cr_2Se_4$ (M=Cd, Zn) single crystals by chemical vapour transport and their crystal structure 90
Single crystal
single crystal growth and characterization of a new bismuth indium niobate compound, $Bi_5In_2Nb_3O_{18-\delta}$ 72
SANS measurements of deuteride (hydride) formation in single crystal Pd 134
Single crystals
growth of $M_xGa_{2/3x(1-x)}Cr_2Se_4$ (M=Cd, Zn) single crystals by chemical vapour transport and their crystal structure 90
Single crystal X-ray diffraction
refinements of the TiNiSi-type RMnSi (R=Tb, Lu, Sc) and DyCoSi structures from single crystal X-ray diffraction 4
Sm–Fe–Ga–Cu–C/α-Fe
magnetic properties and magnetic domains of Fe-rich Sm–Fe–Cu–Ga–C nanocomposite magnets 253
Sm–Fe–N compounds
influence of nitrogenation on structure development and magnetic properties of mechanically alloyed and annealed Sm–Fe powders 212
Solid electrolyte
potentiometric determination of stabilities of $NiSb_2O_4$ and $NiSb_2O_6$ 100
Solid state reaction
synthesis and crystal structure of Ca_3Au_4 152
Spd hybridization
regularities of formation of ternary intermetallic compounds Part 4. Ternary intermetallic compounds between two nontransition elements and one transition element 129

Spinel-type
growth of $M_xGa_{2/3(1-x)}Cr_2Se_4$ (M=Cd, Zn) single crystals by chemical vapour transport and their crystal structure 90
Storage capacity
investigation on the synthesis, characterization and hydrogenation behaviour of new Mg-based composite materials Mg–*x* wt.% $MmNi_{4.6}Fe_{0.4}$ prepared through mechanical alloying 194
Stress field
crystal lattice expansion of nanocrystalline materials 230
Structure
interatomic distances in the stable and metastable bcc and omega structures of the transition metals: analysis of experimental and theoretical trends and correlations with Pauling's bond lengths 31
annealing treatment of AB_2-type hydrogen storage alloys: I. crystal structures 236
Structure, X-ray
growth of $M_xGa_{2/3(1-x)}Cr_2Se_4$ (M=Cd, Zn) single crystals by chemical vapour transport and their crystal structure 90
Structure determination
refinements of the TiNiSi-type RMnSi (R=Tb, Lu, Sc) and DyCoSi structures from single crystal X-ray diffraction 4
Structure type
quarternary $Gd_3Ti_2MnSi_3$ compound in the $GdMn_{1-x}Ti_xSi$ (x= 0 . . . 1) section of Gd-Mn-Ti-Si system at 1073 K 162
Supercooled liquid region
hydrogen absorption and desorption behavior of Zr-based amorphous alloys with a large structurally relaxed amorphous region 275
Synthesis
novel lanthanoid–cadmium oxide pnictides with the tetragonal LaOAgS structure 118

Ternary intermetallic compounds
regularities of formation of ternary intermetallic compounds Part 4. Ternary intermetallic compounds between two nontransition elements and one transition element 129
Ternary oxides
potentiometric determination of stabilities of $NiSb_2O_4$ and $NiSb_2O_6$ 100
Ternary rare earth compounds
phase relations in the Fe-rich region of the Nd–Fe–V system at room temperature L1
magnetic properties of $RPdGe_2$ (R=Y, Gd, Tb, Dy) compounds 21
Thermal conductivity
thermal diffusivity and thermal conductivity of MgSc alloys 27
Thermal desorption spectroscopy
hydrogen evolution from cathodically charged Ti_3Al-based titanium aluminium alloy 287
Thermal diffusivity
thermal diffusivity and thermal conductivity of MgSc alloys 27
Thermal properties
thermal diffusivity and thermal conductivity of MgSc alloys 27
Thermodynamics
thermodynamics of solid Au–Sr alloys 148
Thermoelectric material
temperature dependence of β-phase transformation in Cu added Fe_2Si_5 thermoelectric material 181
Thermopower
thermoelectric properties of the intermediate valent cerium intermetallic $Ce_2Ni_3Si_5$ doped with Pd, Co, and Cu 124
Ti–25Al alloy
hydrogen evolution from cathodically charged Ti_3Al-based titanium aluminium alloy 287
Ti-based hydrogen storage alloy
the activation characteristics of a Zr-based hydrogen storage alloy electrode surface-modified by ball-milling process 258
Time–temperature–transformation
temperature dependence of β-phase transformation in Cu added Fe_2Si_5 thermoelectric material 181
T–M–M′systems
regularities of formation of ternary intermetallic compounds Part 4. Ternary intermetallic compounds between two nontransition elements and one transition element 129
Transition metals
interatomic distances in the stable and metastable bcc and omega structures of the transition metals: analysis of experimental and theoretical trends and correlations with Pauling's bond lengths 31
Transport properties
magnetism and transport properties of $Hf_{1-x}Ta_xFe_2$ and $Mn_{2-x}Cr_xSb$ 11

Undercooled liquid alloys
thermodynamic properties of liquid, undercooled liquid and amorphous Al–Cu–La–Ni alloys 156

Vapor complex
effects of surface modification by chemical filing on the redox behavior of a ceria–zirconia mixed oxide L8

Yttrium
a new $Mg_{0.9}Y_{0.1}Ni$ hydride forming composition obtained by mechanical grinding 84

Zirconium oxide
effects of surface modification by chemical filing on the redox behavior of a ceria–zirconia mixed oxide L8
Zr-Based alloy
hydrogen absorption and desorption behavior of Zr-based amorphous alloys with a large structurally relaxed amorphous region 275
ZrCu2In
crystal structure, magnetic and electrical properties of $ZrNi_2In$ and $ZrCu_2In$ 1
ZrNi2In
crystal structure, magnetic and electrical properties of $ZrNi_2In$ and $ZrCu_2In$ 1